

**PANEL III: CONDITION AND NEEDS OF THE NATIONAL AND NORTHEAST  
TRANSPORTATION SYSTEM**

*(Thursday, November 16<sup>th</sup> 8:30 – 10:15 a.m.)*

- **STEVE L. MASSIE, CEO, Jack Massie Constructor, Inc., and Senior Vice President, Associated General Contractors of America**
- **MATTHEW A. COOGAN, Director, New England Transportation Institute**
- **NEIL J. PEDERSEN, Administrator, Maryland State Highway Administration**
- **KEN ANDREWS, Director, Logistics Competitiveness, The Dow Chemical Company**

**STEVE L. MASSIE**  
**CEO, Jack Massie Constructor, Inc.,**  
**and Senior Vice President**  
**Associated General Contractors of America**

**PANEL III: CONDITION AND NEEDS OF THE NATIONAL AND NORTHEAST  
TRANSPORTATION SYSTEM**

**STEVE L. MASSIE**  
**CEO, Jack Massie Constructor, Inc.**  
**and**  
**Senior Vice President**  
**Associated General Contractors of America**

Steve L. Massie is Chief Executive Officer of Jack Massie Constructor, Inc. of Williamsburg, Virginia, a full service construction firm that specializes in site development, roadway construction, and utility installation.

Mr. Massie is Senior Vice President of the Associated General Contractors of America (AGC), and serves as an ex-officio member of all AGC committees. He previously chaired the AGC Highway & Transportation Division. He is active in a number of national transportation organizations, having served on the Open Shop and AASHTO-AGC-ARTBA joint Committees.

Massie graduated from Virginia Tech with a degree in Civil Engineering.

**SUMMARY**  
**STATEMENT OF STEVE L. MASSIE**  
**JACK MASSIE CONSTRUCTOR, INC.**  
**NATIONAL SURFACE TRANSPORTATION POLICY AND REVENUE STUDY**  
**COMMISSION**  
**NEW YORK FIELD HEARING**  
**NOVEMBER 16, 2006**

**I. Introduction**

Steve Massie is a construction contractor based in Williamsburg, Virginia. He currently serves as the Senior Vice President of the Associated General Contractors (AGC) of America.

Massie will describe the condition and performance of the current highway system and discuss investment needs over the next 50 years. He will also present AGC analysis on construction materials inflation and supplies and apply this information to investment estimates. Massie will discuss his personal experience as a contractor in Virginia, including the challenges of the next generation of federal-aid highway construction and maintenance.

Massie will state that the system is failing and that policymakers are failing the American people by inaction.

Finally, Massie will touch on the federal role in surface transportation and how it relates to the purpose of the Commission.

**II. Conditions and Needs of the Current System**

Massie will describe the conditions and performance of the current system, which indicate that the system is deteriorating and in need of improvement.

**III. Construction Inflation Issues and Analysis**

Massie will present analysis conducted by AGC's Chief Economist Ken Simonson on construction materials inflation and supplies. The analysis shows that the cost of construction materials has been increasing at a rate nearly four times the rate of inflation over the last three years. The volatility of construction materials costs will reduce the purchasing power of already waning resources and affect the predictability of future investment needs.

**IV. Massie's Individual Expertise and Opinion**

Massie will discuss his personal experience as a contractor in Virginia. In particular, he will talk about modern-day federal-aid highway construction, which is conducted in a

increasingly cramped and dangerous environment. Massie will explain that construction work in urbanized areas is slower and, therefore, costs more money.

## **V. Vision for Future**

Massie will conclude his testimony by discussing the federal role in surface transportation and relating it to the unique mission of the Commission. Massie will state that the federal government should continue to have a strong role in surface transportation to ensure the efficient function of the system to provide for interstate commerce and domestic security. Consequently, policymakers should consider all possible means to close the \$107 billion annual funding gap to improve the system or at least the \$50 billion gap to maintain the system.

Massie will suggest that policymakers create an outside entity to evaluate regularly the available options, similar to the postal rate commission, and recommend the appropriate levy to fund surface transportation investment.

Massie will also suggest that states should be encouraged, either through penalty or incentive, to establish dedicated, firewalled trust funds for surface transportation.

Finally, if the Commission does not recommend increasing federal funding for surface transportation, it must recommend restricting the federal role to key elements of the federal system.



# NATIONAL SURFACE TRANSPORTATION POLICY AND REVENUE STUDY COMMISSION

## NEW YORK CITY FIELD HEARING NOVEMBER 16, 2006

STEVE L. MASSIE  
CEO

JACK MASSIE CONSTRUCTOR, INC



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## Background

- Civil engineer and second generation construction contractor based in Williamsburg, Virginia
- Chairman of the The Road Information Project (TRIP), 2001-2002
- Senior Vice President of the Associated General Contractors (AGC) of America
- AGC and its members are builders, users, and investors in the system, and it is our place of business



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## Critical Juncture

- The country is reliant on the system more than ever
- The buying power of our trust fund dollars is significantly eroded by inflation
- The highway trust fund is in precarious financial shape
- The current system is failing



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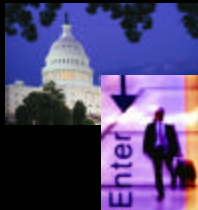


## Summary

- Conditions and needs of the current system
- AGC construction inflation analysis
- Challenges of the next generation of highway construction
- Vision for the future



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## Conditions and Needs of the Current System

- Pavement Conditions are Worsening
- Bridges are not Getting Much Better
- Demand for Travel is Increasing
- Americans are Stuck in Traffic
- Needs



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## Pavement Conditions are Worsening

- Pavement conditions are worse in large urban areas: 26% of pavements were “poor” in 2004, up from 23% in 1999
- In the northeast, 34% of urban roads have pavements in poor condition
- On all roads nationwide, pavement ride quality rated as “acceptable” has decreased from 86.6% in 1995 to 84.9% in 2004



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## Bridges Are Not Getting Much Better

- Of the nearly 600,000 bridges in the inventory, 27.5% were deficient in 2002, just slightly down from 28.5% in 2000
- Of these, 13.7% were classified as “structurally deficient” and 13.8% were classified as “functionally obsolete”
- The percentage of functionally obsolete bridges remains the same
- In the northeast, bridge conditions are much worse than the national average, with 39% rated as deficient



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## **Demand for Travel is Increasing**

- Demand for travel and freight transportation will continue to challenge our current system with travel expected to increase by 48% and truck travel to increase by 68% by 2020



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## **Americans are Stuck in Traffic**

- The Texas Transportation Institute clearly shows congestion is getting worse: congested travel increased from 21.1% in 1987 to 30.4% in 2002
- Travelers spent 45.7 hours stuck in traffic in 2004, up from 35.5 hours in 1995
- According to an FHWA survey, the single largest source of motorist dissatisfaction is traffic flow



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## Needs

FHWA Conditions and Performance Report:

- “Cost to Maintain” – \$73.8 billion per year from 2003 to 2022
  - 8.3% more than the \$68.2 billion of capital spending by all levels of government in 2002
- “Cost to Improve” or “Maximum Economic Investment” – \$118.9 billion per year from 2003 to 2022
  - 74.3% more than the \$68.2 billion of capital spending in 2002



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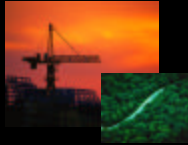


## Construction Inflation

- Highway costs vs. overall inflation
- Reasons for highway costs increases
- Outlook for highway costs
- Convergence of pain



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## Highway Costs vs. Overall Inflation

- Cost of construction is unstable and is increasing at a rate higher than inflation
- No construction segment has been affected as much as highway construction
- Highway construction materials costs have risen 3 to 4 times faster than the rate of inflation each year
- The cumulative change from September 2003 to September 2006 was 35.9%, nearly quadruple the general rate of inflation over 3 years



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## Table 1

Highway Costs vs. Overall Inflation  
(2003-2006)

Time Period	Highway PPI	CPI-U	Difference
9/02 – 9/03	1.8%	2.3%	-.05%
9/03 – 9/04	11.0%	2.5%	8.5%
9/04 – 9/05	16.0%	4.7%	6.3%
9/05 – 9/06	5.6%	2.1%	3.5%
9/03 – 9/06	35.9%	9.6%	26.3%



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Source: Bureau of Labor Statistics: [www.bls.gov/ppi](http://www.bls.gov/ppi) and [www.bls.gov/cpi](http://www.bls.gov/cpi)



## Reasons for Highway Costs Increases

- Highway construction depends heavily on just a few inputs: diesel fuel, asphalt, concrete, and steel
- Together these account for 73% of highway construction costs
- Beginning with explosion of steel costs in 2004, each has experienced above normal price increases



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## Table 2

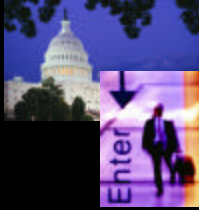
Cumulative Price Increases for Selected Highway Inputs (2003-2006)

Input	PPI Change, 9/03 – 9/06
Asphalt	1.8%
#2 Diesel Fuel	11.0%
Steel Mill Products	16.0%
Ready-Mixed Concrete	5.6%
CPI-U	9.6%



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Source: Bureau of Labor Statistics: [www.bls.gov/ppi](http://www.bls.gov/ppi) and [www.bls.gov/cpi](http://www.bls.gov/cpi)



## Outlook for Highway Costs

- Two factors make it likely that highway costs will rise more rapidly than inflation:
  - Highway construction uses enormous, almost fixed amounts of materials and fuel, making costs vulnerable to what happens to these inputs
  - Fuel and energy costs are far more significant in the cost of highway construction than for almost any other product or service
- Delivery costs are a more significant expense—construction costs are also impacted by congestion



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## Outlook for Highway Costs

- A prudent escalation factor for highway construction would be 8% to 11% per year
- AGC's Chief Economist Ken Simonson:
  - Cost to Maintain would increase by \$40 billion per year
  - Maximum Economic Investment would increase by more than \$30 billion per year



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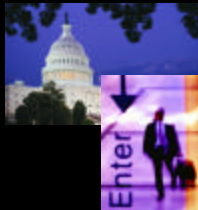


## Convergence of Pain

- Construction material inflation eating more than 30 cents of every dollar in the just the last 4 years
- Growing threat of the cost of labor
- Highway trust fund could run a significant deficit as early as 2009
- Together these will exacerbate the funding gap and challenge our ability to meet the needs



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## Challenges of Next Generation Highway Construction

- Today's construction is slower and more expensive
- Construction work requirements are changing



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## Today's Construction is Slower and More Expensive

- Construction work in urbanized and congested areas is slower and costs more money
- Keep traffic and pedestrians moving
- Restrictions on moving workers, equipment, and supplies
- More complex underground utility networks



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## Construction Work Requirements are Changing

- DOTs requiring contractors to do their work during non-peak times necessitates weekend and night work
- Concrete barriers must be installed to separate workers from traffic
- Traffic management plans must be implemented
- Shorter construction windows to expedite project



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## Vision for the Future

- No easy answers
- Role of federal government
- No options should be left off the table
- Create revenue commission
- State dedicated and firewall trust funds
- Other suggestions



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## No Easy Answers

- Aging system like ours needs maintenance, reconstruction, expansion, and the construction of components not contemplated in 1956
- In 1956 Congress rejected general fund financing, tolling, and bonding and embraced user fee principle



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## **Role of Federal Government**

- Federal government should continue to have a strong role in surface transportation to ensure the efficient function of the system to provide for interstate commerce and domestic security
- Look at all means to close the gap
- Federal government cannot walk away from the system it created and built—it must see it mature and adapt to changing demographic and economic conditions and mobility needs



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## **No Options Should be Left off the Table**

- No option should be left off the table—AGC supports them all
- Shore-up the trust fund in the short term (e.g., indexing, interest)
- Ultimately replace the motor fuel tax in the long term (e.g., VMT, freight weight)
- Innovative financing ideas need to be considered (e.g., bonding, PPPs)
- All have strengths and weaknesses—no one idea will be perfect for every location



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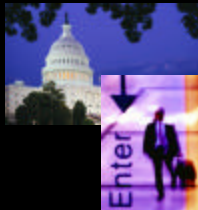


## Create Revenue Commission

- Politician-friendly way out
- Create an entity like the postal rate commission to meet regularly and set levy
- Automatically implemented unless blocked by supermajority of Congress



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## State Dedicated and Firewalled Trust Funds

- States should be encouraged to establish dedicated trust funds for highway improvements
- Firewalled like the federal highway trust fund so that revenues can only be used for transportation purposes
- Establish an incentive or penalty



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## Other Suggestions

- States should be allowed and encouraged to purchase and preserve as much future right-of-way as possible
- Standards for roadway shoulders should be upgraded to allow vehicles to move to the shoulders during maintenance work
- If Commission does not recommend increased funding, it must recommend limiting federal-aid eligibility to only key elements of the federal system



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## Conclusion

- Clay Commission reported in 1955 that “the existing system is inadequate for both current and future needs”
- We are at that point again—now is the time to act
- The current system is stretched to its limits and available funding is stretched past its effectiveness
- Commission must chart a bold strategy for the future—it has been given the opportunity to build a legacy like Eisenhower’s



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America**



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**MATTHEW A. COOGAN**  
**Director**  
**New England Transportation Institute**

### **PANEL III: CONDITION AND NEEDS OF THE NATIONAL AND NORTHEAST TRANSPORTATION SYSTEM**

**MATTHEW A. COOGAN**  
**Director, New England Transportation Institute**

Mr. Coogan is the Director of The New England Transportation Institute, a nonprofit research organization specializing in the application of multidisciplinary approaches to multimodal and intermodal transportation issues. The Institute is currently undertaking a three year study of rural transportation issues in the Northeast.

Over the past 15 years, Mr. Coogan has been consulting in the areas of the application of new and developing technology to carry out the objective of improved mobility. For the Transportation Research Board, he recently served as Principal Investigator for a study of the role of collaboration in the development and application of multi-agency and multi-jurisdictional mobility strategies. For the National Transit Institute he developed, and is currently teaching a course on Intermodal Traveler Information Systems. For the Airport Cooperative Research program, Mr. Coogan is currently preparing a book on the role of public transportation services for ground access to major American airports, based partially on his role in two earlier studies for the Transit Cooperative Research Program.

Previously, Mr. Coogan served as Undersecretary of Transportation in the Commonwealth of Massachusetts, where he managed highway, rail and airport strategies. In this role, Mr. Coogan was co-founder and co-chair of the Coalition of Northeast Governors' Task Force on High Speed Rail. He was appointed by the National Academy of Science to both the Committee on High Speed Ground Transportation and the Committee to Critique the National Maglev Initiative.

Matt Coogan has lectured on transportation issues throughout the United States, and in Europe and Asia. He has been featured in *Engineering News Record*, *Architectural Record*, *The New York Times*, *Bloomberg News Service*, *The Wall Street Journal* and *The Washington Post*, and has appeared on The Today Show, CBS News and National Public Radio.

**Testimony Submitted for the Record  
of  
Matthew A. Coogan, Director  
The New England Transportation Institute  
White River Junction, Vermont  
to the  
National Surface Transportation Policy and Revenue Study Commission  
Field Hearing  
New York City  
November 16, 2006**

## **Introduction**

Thank you, Mr. Chairman, and let me join my colleagues in welcoming you to the Northeast. We very much appreciate your coming here.

I have the pleasure of serving as the Director of a research organization that is now starting a three year program to explore three elements of rural transportation. My organization, The New England Transportation Institute, is examining 1) issues of rural mobility, 2) issues of connectivity of the system for rural residents, and 3) issues of rural safety.

- Concerning mobility, we will ask the residents of Maine New Hampshire Vermont and Northern New York if *they* think they are isolated, and if so, why.
- Concerning connectivity, we will explore the potential of existing and evolving information technology to match up people who need service with organizations that know how to provide services in rural areas.
- Concerning safety, we will explore the question of why rural young men die in highway accidents at a rate *five times* that of their urban counterparts.

We have structured this testimony for submission to the Commission using these three main issues areas.

## **I. Concerning Mobility and Demographic Change**

You have invited me here to say a few words about rural transportation issues. In many ways those issues are similar to others that have already been aired here today. And, in many ways, they are different.

Let me put some perspective behind that point. In transportation planning based on the metropolitan experience we have some well established rules: congestion is bad, and very often, investment in additional capacity is an important part of a strategy to deal with it. We have good ways to measure congestion, and anyone knows the difference between Level of Service C and Level of Service F.



But, when we shift the subject to the evaluation of transportation in *rural* areas, we have a big problem. The problem is that the measures of performance we apply in the metropolitan areas may not be the right measures to apply in the rural areas. In many cases, we are simply asking the wrong question, or not asking any questions at all!

For much of America, the failure of the transportation system is not so much about “congestion” as it is about “isolation.” And there may be some major funding/financial support issues implied by this observation.

In many ways, isolation is the opposite of mobility. Isolation results from many factors, most of which are beyond our scope today. Isolation occurs when the local store closes down, because of the opening of a regional retail center many miles away. Isolation occurs when the local doctor is replaced by a regional medical center, also many miles away. In many rural areas, the support function of the local small town has disappeared; and the most basic trips are now longer in distance.

The committee has asked me to provide a “Northeast” point of view here, and what I am about to say may not be true of Wyoming, but it is true of Maine, New Hampshire and Vermont.

Here, we are sitting on a demographic time-bomb.

In our rural areas, we are experiencing two demographic changes at the same time. In many places, our young people are leaving to find work elsewhere. Many of the same areas are attracting “exurban” folks who have already worked in the urban areas, and choose to escape from them.

So, our remaining local population is aging naturally, and to boot, we see an exodus of younger workers, and an influx of older ones.

When you are forty, and when you are fifty, the problem of isolation is solved with a few more dollars at the gas pump, and few more hours behind the wheel. When you are seventy-five, there will soon come a time when you cannot, or just should not, drive at all. All of this adds up to a geographical setting that assumes the availability of private cars; those with lessened access to them must deal with the isolation problem.

Within many urban areas, the infrastructure to deal with this change is basically in place. The systems for transit, paratransit, and community based services are there. The van owned by the church, social service agency or hospital may have to pick a few more people on a route it already covers. But this is incremental change, to be dealt with on an incremental basis.

By contrast, the rural institutions needed to deal with the changes in the “baby-boomer” generation either do not exist, or are simply not scaled to deal with the challenge that is coming. Millions of rural Americans are isolated from services that you and I take for granted. Over the next twenty years, the number of rural Americans who become more functionally isolated will be akin to a tidal wave on our national psyche. In a recent survey in New Hampshire, about 10% of respondents stated that they were worried about their ability to continue driving in the next few

years. And, a somewhat startling 6.5% said they “had missed or not chosen to schedule a medical appointment because they did not know they could get a ride.”<sup>1</sup>

In short, Mr. Chairman, it is my suggestion to the Commission that the issue of the integration of health/human services transportation with more traditional transit services (and in specific the severity of this problem for the rural areas) be elevated to become a focus of your deliberations.

There are other examples where, in approaching rural issues, we do not have the same set of tools and metrics available compared with those in use for the metropolitan level. It is possible now to observe two separate geographic contexts for those Americans who live outside of Metropolitan Statistical Areas (MSA). We can observe the truly rural, for whom travel distances are extremely long, and for whom social services will have to be provided sensitively to overcome those challenges. But there is also a second category, as defined by the US Census, to describe areas outside of the MSA's; these are the “micropolitan” areas. According to the Census, one in ten Americans lives in an area with a dominant town of 10,000 to 50,000 population, which is not adjacent to an existing MSA. The Office of Management and Budget made a policy decision in June of 2003 to direct the US Census to create this new category to help us understand how the country is actually laid out, and how it functions in this century.

In our work on rural transportation issues, we have found the definition of micropolitan areas to be very beneficial, and yet we have very few transportation policies explicitly designed to deal with them.

I would argue, Mr. Chairman, that these 575 areas represent a new canvass upon which the national picture is to be drawn. To categorize them as just as simply “rural” no longer makes sense. They have become subcenters of their own, in a world in which jobs, retailing and major institutions seem to cluster together, often far from existing housing locations.

And yet, the tools of support for the development of these areas, such as the highly successful Metropolitan Planning Organizations, do not exist, or are not made available to the local decision makers in these areas. And yet this is a frontier where agents of change are young, and not yet jaded by the scale of the problem. In my home “micropolis,” which includes Lebanon NH, Hanover NH and White River Junction VT, we have free public transportation with high headway services on the largest lines. Yes, free. But the managers of that system are suspended in a gap in the national funding system; and we do not even have a Metropolitan Planning Organization where the allocation of locally oriented surface transportation dollars can be discussed in an organized manner.

In our micropolis, sidewalks are being carved out of the wilderness, bike lanes are being painted onto our biggest arterials, and abandoned rails are reappearing as trails. The areas are still small enough that individual initiatives can be encouraged at the community level, in spite of the lack of federal funding categories to support their innovations.

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<sup>1</sup> The Institute on Disability/UCED at UNH, “New Hampshire Speaks Out,” 2006

Without question, the Commission will be making recommendations concerning the needs of our great metropolitan areas, and we hope you will be examining the developing trends in our rural areas; it is my specific suggestion that your Commission encourage the US DOT to undertake a series of policy studies of the extent to which these 575 American communities are being given the support services and programs they need.

## **II. Rural Information Technology to Improve Mobility and System Connectivity**

Whether we are dealing with the longest trips, those in the truly “rural” areas, or with a pattern of trip-making to newly developing subcenters of development outside of the traditional metropolitan areas, we are concerned with the need to create more innovative policies, programs and services to deal with problem of “isolation” of persons in the non-metro areas. In keeping with this concern, we would ask if enough national priority is being allocated to the development of “Intelligent Transportation Systems” (ITS) technologies for rural application.

The basic ITS technological resources, of course, already exist. Highway directions in massive detail are available for any auto trip, and any kind of car. And the same highway trip planning will soon be restructured and redesigned for use in the cell phone. Without question, ITS information technology is being successfully applied to the trip by private automobile.

But, for the rural American who wants to take the bus or the train to or from a rural area, very little help or encouragement is provided to the individual who seeks a sustainable alternative to the automobile. The longer distance trip in a rural area is usually characterized as being multi-modal and multi-segment in nature. To plan such a trip you need some information from the inter-city carrier, and some information from the local transit operator, and maybe some information about other local services, such as the taxi.

At the very least, we need to develop information technology that would reveal the extent that our citizens really are “isolated” from connections to medical care, and employment opportunities. A mature rural passenger information system would be able to describe the mobility options that exist, and to “flag” for the policy maker the location of those who really need more help in getting to the hospital centers, and to other vital services. Ultimately, we will have to do better in connecting those who need a ride to the hospital with those that have a ride to offer.

In your deliberations in the area of passenger information systems for rural areas, I would encourage the Commission to learn more about rural trip planning/brokerage services in Modoc County, CA, and in statewide applications under development in both Oregon and Washington State. In the east, I would draw the Commission’s attention to the rural programs of the I-95 Corridor Coalition, particularly in support of the Explore Maine project of the Maine DOT.

### III. Concerning Rural Transportation, Safety and Health

2004 U.S. Male Death Rate by Age Cohort in Vehicles by Driver's Place of Residence Density Quintile

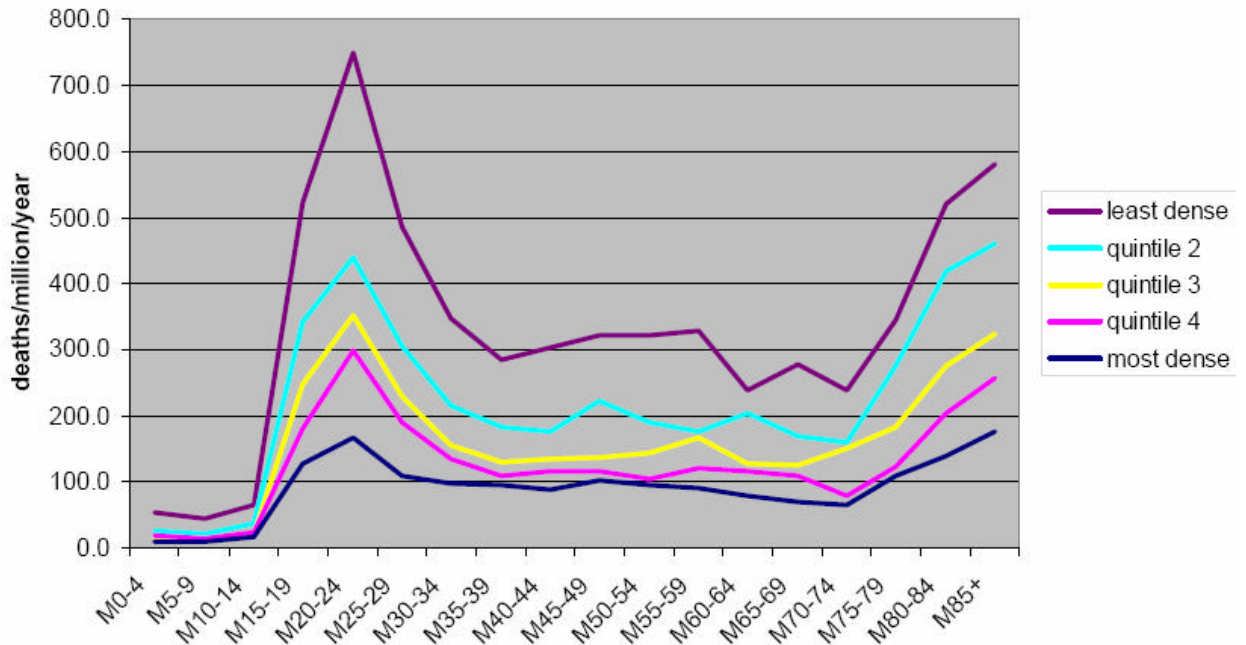


Figure 1. Rural vs. Urban Highway Death Rate, by Age (Source, Smart Mobility, Inc.)

Finally, we are examining a surface transportation policy issue that cannot be ignored in the rural areas: safety on the roadway system. It is sometimes tempting to dismiss the rural experience as passive and bucolic. But, looking at the issue of highway safety, the opposite is true. The rural areas are experiencing a serious threat to the lives of our young people -- the death rate from automobile accidents. Figure 1, compiled for the New England Transportation Institute, tells the story.

Looking the national traffic safety data, the graph shows that *rural* young males between 18 and 28 have a death rate on the highways that is five times that of their urban counterparts. And, as we move from left to right on the graph, looking at the pattern for older cohorts, the rural death rates consistently remain higher for all age groups, with an alarming increase in our oldest drivers. No matter how you slice it, death on the highway is a more immediate problem in the rural areas than in the urban areas. And it does not seem to be going away.

Mr. Chairman, over the next two years we will be working with colleagues at the state, university, and international research levels to try to bring a fresh perspective to this question. Working with a top-rank group of psychologists and public health researchers, we will be exploring some very tough questions; including the extent to which our very society is sending mixed messages to our youth about the desirability of speeding and other risk taking behavior. Could it be that we are telling our young people that speeding is bad, as we sit on the couch and

watch movies with “good” chase scenes, followed by a commercial showing how fast our cars can go?

For some in our society, the death rate on the highway is a matter of concern. For our rural young men, the death rate on the highway is a pandemic. This fact alone could have implications for the funding requirements of the nation’s highway system over the next 15 years.

Thank you for the opportunity to share with you our views about the needs of rural areas for surface transportation over the next decades.

**NEIL J. PEDERSEN**  
**Administrator**  
**Maryland State Highway Administration**

## **PANEL III: CONDITION AND NEEDS OF THE NATIONAL AND NORTHEAST TRANSPORTATION SYSTEM**

**NEIL J. PEDERSEN**  
**Administrator**  
**Maryland State Highway Administration**

Neil J. Pedersen is Administrator of the Maryland State Highway Administration (SHA). Mr. Pedersen is responsible for an agency that maintains roadways and bridges. Mr. Pedersen is leading SHA in the delivery of its largest capital program in its history, including two mega projects, the \$2.4 billion Woodrow Wilson Bridge which is currently over halfway through construction and the \$2.4 billion Intercounty Connector which recently began construction. He also serves as the Governor's Highway Safety Representative and Chair of the Maryland State Roads Commission.

A registered professional engineer, he previously served for two and a half years as SHA's Deputy Administrator/Chief Engineer for Planning and Preliminary Engineering – a position that oversees all of the agency's planning, design, environmental, and real estate functions. He also served as SHA's Director of Planning and Preliminary Engineering for 16 years.

Mr. Pedersen currently chairs the Executive Committee of the I-95 Corridor Coalition. He is also involved with the American Association of State Highway and Transportation Officials including its Standing Committees on Highways and Research, its Board of Advisors for the Center on Environmental Excellence, and its Project Delivery Council. Mr. Pedersen serves as Chair of AASHTO's Task Force on Context Sensitive Solutions and Vice Chair of its Subcommittee on Asset Management. He chairs the Technical Activities Council of the Transportation Research Board. He serves on the Board of Visitors of the University of Maryland's Department of Civil and Environmental Engineering.

A native of Massachusetts, Mr. Pedersen holds two undergraduate degrees from Bucknell University and a Master's degree in Civil Engineering from Northwestern University.

**TESTIMONY OF NEIL J. PEDERSEN**

Chair, I-95 Corridor Coalition

Administrator, Maryland State Highway Administration

Chair, AASHTO Policy Committee on Future Expansion of the Interstate System

on

**CONDITION AND NEEDS OF THE NATIONAL AND NORTHEAST  
TRANSPORTATION SYSTEM**

before

**NATIONAL SURFACE TRANSPORTATION POLICY AND  
REVENUE STUDY COMMISSION**

Field Hearing  
New York City  
Thursday, November 16, 2006



## Introduction

Mr. Chairman, distinguished commission members, my name is Neil Pedersen. I serve as the Administrator of the Maryland State Highway Administration, a modal administration within the Maryland Department of Transportation.

I come before you today as the Chair of the I-95 Corridor Coalition, an association of over 60 agencies including state departments of transportation, authorities, and other transportation agencies that work together to identify and solve transportation problems in 16 states, the District of Columbia, and two Canadian provinces along the Eastern Seaboard. Attached is a more detailed description of the Coalition and its programs.

In the past year I have also had the opportunity to chair a policy committee on the future of the Interstate system for the American Association of State Highway and Transportation Officials (AASHTO).

My testimony is drawn from my experiences in all three of these roles.

I am pleased to appear before you to discuss the condition and needs of the national transportation system, with a focus on issues associated with the Northeastern U.S. In my remarks I will:

- Identify significant and costly system preservation needs that if not addressed will have major implications for the national economy.
- Describe the need to address major bottlenecks, both on the highway and rail system. These are mega-projects that are not being addressed today because while their benefits are regional and national, their costs are so high they cannot be funded by a single state;
- Argue that the cost of failure—the cost of failing to address these major system preservation needs and bottlenecks—will undermine the economic vitality of our nation; and
- Recommend that you steer us toward a vision of the future and a national transportation policy that—
  - Sees freight transportation and longer-distance business and recreational travel as critical to interstate commerce, global trade, and the economic vitality of the nation;
  - Sees focused federal capital investments in mega-projects, system preservation and maintenance, pricing and tolling, and operations and information as the tools for our 21<sup>st</sup> Century transportation system; and
  - Sees strong federal leadership to—
    - Complete a national transportation policy framework;
    - Define a vision of the freight- and passenger-transportation systems for the 21<sup>st</sup> Century as a framework for policy and investment decisions;

- Support multi-state institutions like the I95 Corridor Coalition that help states build consensus and prioritize investments in projects of regional and national importance; and
- Implement newly authorized mechanisms to fund large projects of national importance where benefits accrue to multiple jurisdictions, but the costs are too great for the local jurisdiction to fund alone.

## **Our Aging Infrastructure Requires that We Make Major Investments in System Preservation**

Our nation's economy is dependent on a well-functioning and efficient transportation system, which in turn depends on the capacity and condition of the underlying infrastructure—our highways, bridges, rail lines and tunnels. Our transportation infrastructure has been built over the past 200 years, with much of it in the past 50 years. However, this infrastructure is aging, and in some cases, not very gracefully. This is a particularly important issue in the Northeast, where much of the transportation infrastructure is older than in other parts of the country.

From a policy and funding perspective there are two major issues associated with system preservation needs. First, an asset management approach is needed to assure that preservation needs are understood and investments are made in a way that assures maximum long-term return on investment in system preservation. The second is that over the next 50 years many major transportation facilities will be reaching the end of their useful life and must be replaced, not just rehabilitated. This will be very costly, especially where existing traffic must be maintained while reconstruction takes place. In the case of many transportation facilities, and especially in the case of major structures such as bridges and tunnels, the cost of funding infrastructure replacement will be beyond the capability of the jurisdiction which owns the facility.

### **Asset Management**

AASHTO has defined asset management as “a strategic and systematic process of operating, maintaining, upgrading, and expanding physical assets effectively throughout their life cycle. It focuses on business and engineering practices for resource allocation and utilization, with the objective of better decision-making based upon quality information and well-defined objectives.”

Both the Federal Highway Administration and AASHTO have recognized the potential of asset management to help identify the most cost-effective long-term investment strategies to ensure that infrastructure is kept in a functional condition that meets mobility and economic needs. The experience of transportation agencies that have adopted an asset management approach is that—for the same amount of funding—the overall condition of the system can be made better than if an asset management approach is not taken. In general, transportation agencies continue to struggle with adequate funding for system

preservation, but sound asset-management analysis can help to make the case for adequate monies being budgeted for system preservation. Based on our experience in Maryland, as well as my observations of other states' experiences through my role as Vice Chair of the AASHTO Asset Management Subcommittee, I urge the Commission to emphasize the importance of a sound asset-management approach being used as a basis of future transportation funding policy.

### **Costly Transportation Facility Reconstruction and Replacement Needs**

Over the next 50 years, a number of surface transportation facilities will reach the end of their useful life and must be reconstructed or completely replaced. For example, bridges on the Interstate system can typically be expected to have a useful life of 75 to 80 years. Many of these structures are now approaching 50 years of age and must be replaced in the next 25 to 30 years. Underlying pavement structures on the Interstate system are beginning to fail at an increasing frequency as truck traffic continues to grow at a much faster pace than overall traffic. Major sections of Interstate pavement can no longer be milled and resurfaced; the underlying pavement sections must be completely replaced. This will have major cost, as well as traffic disruption, implications. Although railroad bridges usually have a longer expected life than highway bridges, many of them are much older than Interstate bridges and will require major reconstruction or replacement in the next 50 years. Similar issues exist for metropolitan transit systems.

Based on recent experience and cost estimates for several sections of Interstate that will require major structure or pavement replacement in the next 20 to 30 years, it appears that the basis for cost estimates in the U.S. Department of Transportation's Conditions and Performance Report and AASHTO's Bottom Line Report for maintaining the existing highway system may be seriously underestimated, particularly when projecting out over the next 50 years. AASHTO has recently funded a study to address methodological issues associated with underestimates in future funding needs for system preservation.

Another issue that must be confronted regarding the reconstruction or replacement of major structures as part of the surface transportation system is that the costs associated with these projects will—in many cases—be huge, often in the hundreds of millions or billions of dollars. Many of these facilities serve interstate traffic, and the benefits, particularly the economic benefits, of these facilities accrue to many jurisdictions other than the one in which the facility is located. The costs of reconstruction or replacement often far exceed the financial capability of the agency that owns the facility. These facilities are critical to the national economy, and there is a federal interest in ensuring that they are kept in acceptable operating condition. Not doing so could have dire national economic implications.

### **Need to Address Major Highway Bottlenecks and Rail Choke Points**

We are at the edge of a transportation crisis in the I-95 Corridor Coalition region. The demand for transportation has outstripped our ability to deliver new capacity, to

unscramble congestion, and to ensure reliable freight and passenger trips. We have one of the most developed and sophisticated transportation networks in the world, but we have not invested enough in the system to keep pace with economic growth and trade. We are at risk of choking our economy.

Central to our problem are major highway bottlenecks and rail choke points that cause tens of thousands of hours of delay each day, week, and year to commuters, business travelers, truckers, the railroads, and shippers and receivers. We know where the bottlenecks and choke points are, and we know how to redesign them and reengineer their operation, but we are not moving to fix them. We are not addressing these projects because—while the benefits are local, regional, and national—their costs are so high they cannot be funded by a single state. Most of these projects are hugely complex and costly. Few states and transportation agencies have the money to tackle them. And even fewer have a way to share the costs and risks with other states. Yet the future cost to the nation's economy of not addressing these bottlenecks is staggering. Delay at these bottlenecks is growing much faster than the growth in traffic. Perhaps an even greater impact than the total amount of delay is the continuing growth in variability in travel time through these bottlenecks. In this era of just-in-time delivery, travel time must be based on the highest expected delay, rather than average delay. This is exacting a high cost in delivery charges.

I would like to reinforce the points that I have made regarding system preservation and bottlenecks through two examples from my home state of Maryland. They exemplify the issues being faced all along the Eastern Seaboard, and I daresay in the rest of the country.

### **Woodrow Wilson Bridge**

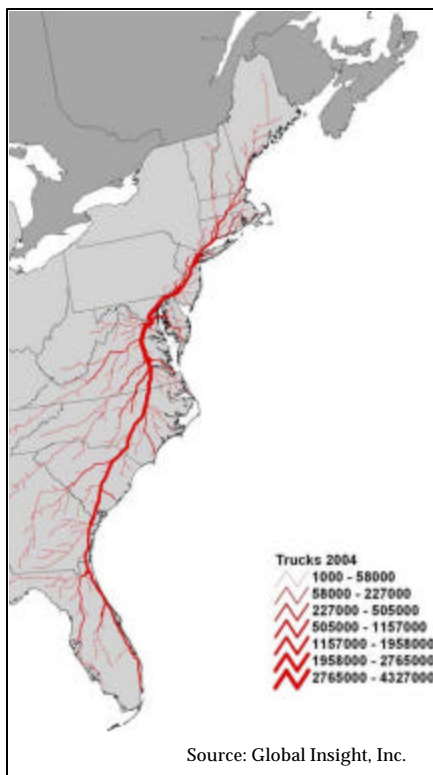
The Woodrow Wilson Bridge spans the Potomac River between Maryland and Virginia, just southeast of downtown Washington, D.C. It is part of the I-95/I-495 beltway around Washington. It carries a huge volume of local commuting and business traffic—about 200,000 cars and trucks cross the bridge on an average day. Equally important, it is the major I-95 corridor for freight trucks carrying shipments from the Southeast and South to customers and markets in cities in the Northeast and vice versa. The U.S. Department of Transportation estimated that the value of the freight trucked across this bridge is equivalent to 1.3 percent of the entire gross domestic product (GDP) of the United States.

The Woodrow Wilson Bridge was originally constructed by the Bureau of Public Roads (the predecessor to the Federal Highway Administration) and opened to traffic in 1961. It was the only bridge on the Interstate system owned by the federal government. By the mid-1990s it was carrying two and a half times the traffic volume that it had been designed to carry. Its structural condition was deteriorating rapidly and bridge engineers were predicting that weight restrictions could be required as early as 2004. It had only three lanes on the bridge in each direction, and five highway lanes worth of traffic were trying to squeeze through from each direction. It was a major bottleneck, backing up traffic for miles and causing untold tens of thousands of hours of delay each year to auto and truck drivers in the I-95 corridor.

Maryland and Virginia had been watching the bridge deteriorate for years despite aggressive maintenance, and watching congestion build despite aggressive traffic management and travel demand management programs. But neither state could take action despite drawers full of plans. The estimated cost of replacing the bridge and approaches was \$2.4 billion, several times the annual statewide capital budgets of either the Maryland State Highway Administration or the Virginia Department of Transportation. The states could not afford the solution, and there was no federal program to fund projects of national and regional importance.

If Congress had not authorized special funding for the Woodrow Wilson Bridge—funding that paid for the vast majority of the cost of the project—we would have come close to closing the Woodrow Wilson Bridge to trucks for safety reasons. Had we been forced to do that, the transportation and economic impacts would have been felt far beyond the bridge and the Baltimore-Washington metropolitan area. The map in Figure 1 shows the origins, destinations, and routes of truck freight crossing the Woodrow Wilson Bridge. It serves interstate commerce across the entire Eastern Seaboard. It is a critical link for Maryland’s economy and is an even more critical link for the Coalition region’s economy. It is estimated that 50 percent of the trucks using the bridge have a trip origin or destination outside the Baltimore-Washington metropolitan area.

**Figure 1. Origins, Destinations, and Volumes of Truck Freight Crossing the Woodrow Wilson Bridge**

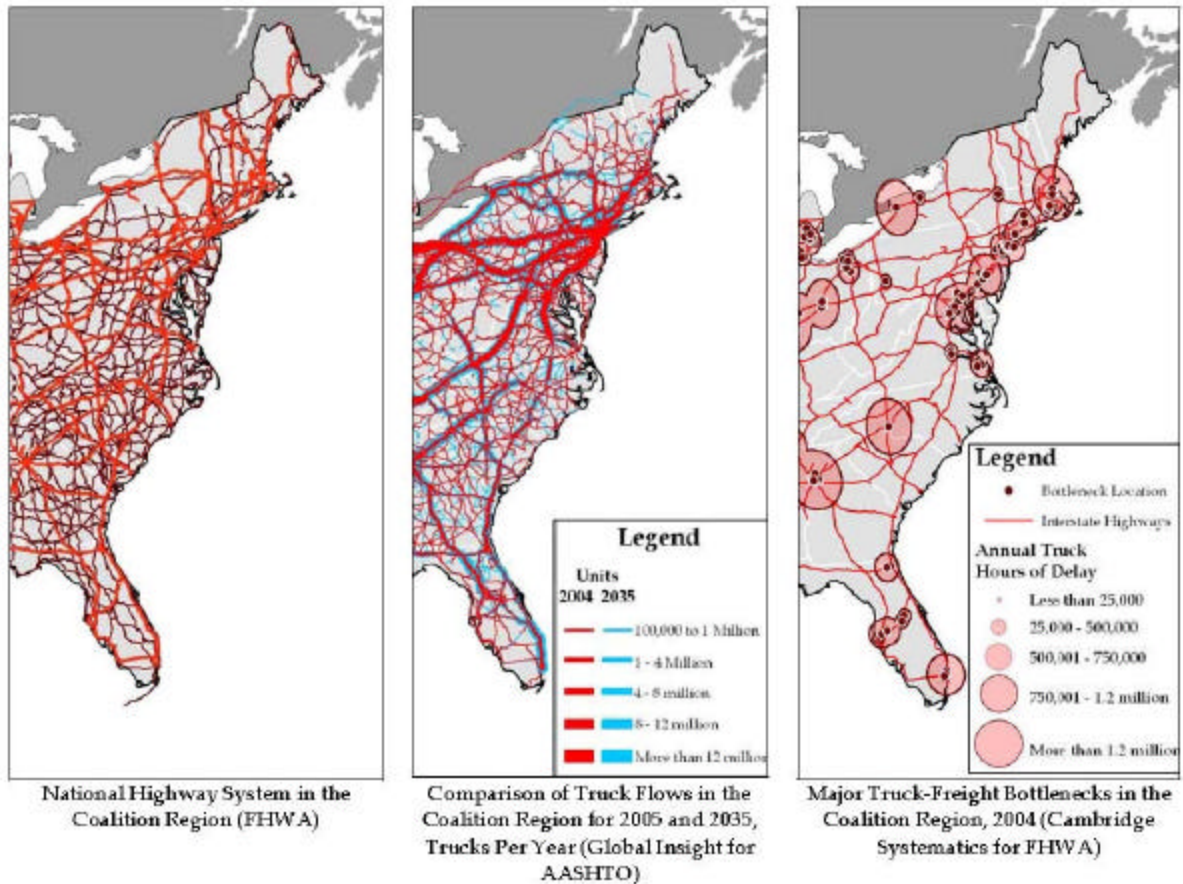


We are currently rebuilding the Woodrow Wilson Bridge and are about two-thirds finished with the construction. By the time we are finished, it will have taken us \$2.4 billion and 12 years. But it took a Congressional earmark and exceptional political support to be able to get construction started. Had Senator John Warner of Virginia not take a personal interest in the problem and used his leadership clout in Congress, and had not the governors of Maryland and Virginia committed considerable political and financial capital to the effort, we might have had to close it to trucks for safety reasons and would face a grim future in terms of the cost of delays incurred by commerce crossing the bridge.

Our efforts on the Woodrow Wilson Bridge were successful. The process worked once for one major aging bridge and highway bottleneck. But that process will not solve the other 60-70 major highway bottlenecks across the Coalition region nor scores of other major tunnels and bridges on the Interstate system in need of major repair or replacement. We estimate that traffic, especially truck traffic, on the Coalition’s massive network of highways will almost double over the next 30 years. We can identify at least 65 major highway bottlenecks

across the network, most of them at urban Interstate interchanges. The maps in Figure 2 show the major highways in the Coalition region, the current and anticipated truck volumes on those highways, and the worst 65 freight-truck bottlenecks. Unfortunately, we do not have a good handle on the major tunnel and bridge reconstruction or replacement projects that will be needed for structural condition reasons, but it is critical that we get a better handle on this as a nation.

**Figure 2. Major Highways, Freight-Truck Flows, and Bottlenecks in the Coalition Region**



We know that without a systematic and innovative financing approach that leverages public and private funding these strings of bottlenecks will slowly choke our metropolitan areas and halt our regional and transcontinental truck traffic. Our corridors of commerce will be neither.

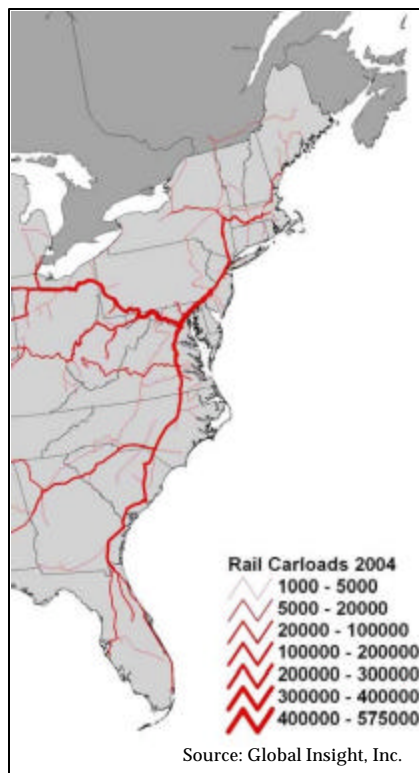
In SAFETEA-LU Congress initiated a program to fund projects of national and regional significance. We greatly applaud Congress' action. However, the program is underfunded and all the monies were rapidly earmarked to specific projects, many of which served more of a local function than a national or multi-state regional function. Many of the earmarks will address worthwhile transportation projects, but relatively few of them will go to solve major highway bottlenecks, and fewer still will address projects of national and regional importance to our economy. We need a national vision and policy

that says we will address these major highway bottlenecks before they fail. We also need a national policy that will address the need to reconstruct or replace major highway tunnels and bridges that are reaching the end of their useful life and that provide major economic benefits to jurisdictions outside the jurisdiction that owns the facility.

### **Baltimore’s Rail Tunnels: Howard Street and BP & Union Tunnels**

The Howard Street Tunnel is a single-track, railroad tunnel in the heart of Baltimore City. It serves freight lines operated by the CSX railroad. Built in the 1890s it connects Cincinnati and Chicago with Philadelphia, New York, and the Northeast. And it connects the coastal cities of the Southeast to Philadelphia, New York, and New England. It is a critical link in the CSX rail network; it serves 25-40 daily freight rail trains, many a mile long. These freight trains carry fruits and vegetables, intermodal trailers and containers, chemicals, fertilizers, paper stock, propane, sand and gravel, automobiles, and auto parts. The CSX line through the Howard Street Tunnel is the major rail corridor paralleling I-95 and the only viable alternative for relieving the crush of truck traffic on that highly congested highway corridor.

**Figure 3. Origins, Destinations, and Volumes of Rail Freight Through the Howard Street Tunnel in Baltimore.**



The map in Figure 3 shows the origins, destinations, and routes used by freight trains traveling through the Howard Street Tunnel. The tunnel is a critical rail link for Maryland shippers and receivers, but more importantly, it is the critical link for shippers and receivers across the Eastern United States, connecting the Coalition region to the Midwest and Southeast. The Federal Railroad Administration estimates that the volume of passenger and freight rail traffic through the Baltimore area, including the Howard Street Tunnel, will increase by fifty to seventy percent by 2050—but only if the capacity exists to accommodate this growth.<sup>1</sup>

In July 2001, a tank car carrying hazardous material and several adjacent rail cars carrying paper—part of a CSX freight train moving through Baltimore—caught fire and burned inside the Howard Street Tunnel. The fire burned for four days and closed down the tunnel for more than two weeks. Trains moving north and south, including trains carrying perishable orange juice from Florida growers to New York supermarkets, were

<sup>1</sup> See Federal Railroad Administration, “Report to Congress—Baltimore’s Railroad Network: Challenges and Alternatives,” November 2005.”

forced to re-route as far west as Cincinnati.

Although the tunnel was re-opened, it remains the East Coast's single largest rail freight choke point. The next incident—whether a fire, a chemical spill, a derailment, or a structural failure of the tunnel—would again shut down north-south rail traffic, and again at great cost to the regional and national economy. While arguably the most significant rail choke point on the East Coast, the Howard Street Tunnel is only one of the major rail choke points in the Baltimore area.

The other rail choke points are the BP & Union Tunnels through Baltimore, which are used by Amtrak's 140-mph Acela trains traveling between New York and Washington, DC; by Maryland's MARC commuter trains; and by Norfolk Southern's freight trains traveling along the North East Corridor between Washington, DC and New York. Both the BP & Union Tunnels need to be replaced. Twenty years ago their life expectancy was estimated to be forty years, and new rail tunnels can take twenty years to build. For safety, Amtrak trains travel through the tunnel at very slow speeds, adding significant time to Acela and Metroliner trips along the Northeast Corridor. No alternate routes exist; closure or failure of these tunnels would immediately stop all Amtrak Northeast Corridor service as well as all Norfolk Southern and MARC trains. New tunnels built to modern standards would preserve Northeast Corridor Amtrak service and help Amtrak meet its goal of two-hour passenger service between Washington, DC and New York.

In March 2002, the I-95 Corridor Coalition commissioned a study of the Mid-Atlantic rail system. The Mid-Atlantic Rail Operations Study (MAROps) was a joint initiative of the I-95 Corridor Coalition, five member states (New Jersey, Pennsylvania, Delaware, Maryland and Virginia), and three railroads (Amtrak, CSX, and Norfolk Southern). The Federal Railroad Administration (FRA) and Federal Highway Administration (FHWA) participated as advisors.

The study identified over 70 major rail choke points within the Mid-Atlantic rail system. Over a two-year period, the MAROps participants defined a 20-year, \$6.2 billion program of rail improvements aimed at improving north-south rail transportation for "both passengers and freight" in the Mid-Atlantic region and helping reduce truck traffic on the region's overburdened highway system.<sup>2</sup> In a follow-up study in 2004, the benefits from the MAROps program improvements were estimated at \$12.8 billion—about a 2-to-1 benefit-cost ratio.<sup>3</sup> The benefits included:

- \$2.9 billion in direct shipper benefits due to reduced freight transportation costs;
- \$6.3 billion in direct savings due to reduced highway congestion for vehicles still on the road—\$0.8 billion for trucks, \$0.7 billion for work-related auto trips, and \$4.8 billion for non-work auto trips; and

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<sup>2</sup> See *Mid-Atlantic Rail Operations Study: Summary Report*, I-95 Corridor Coalition, April 2002 at <http://144.202.240.28/pman/projectmanagement/Upfiles/reports/full112.pdf>

<sup>3</sup> See *Mid-Atlantic Rail Operations Study: Interim Benefits Assessment*, I-95 Corridor Coalition, March 2004 at <http://144.202.240.28/pman/projectmanagement/Upfiles/reports/full240.pdf>

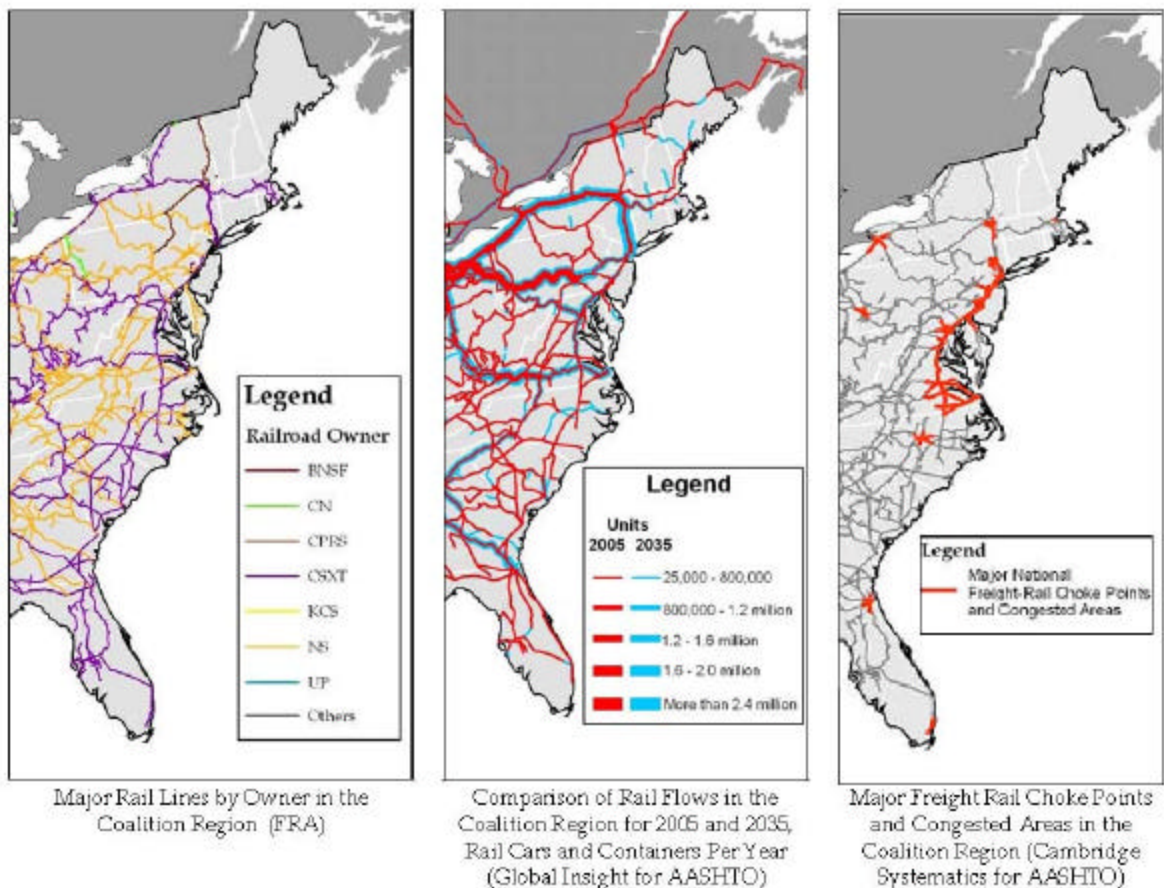


- \$3.7 billion in indirect economic benefits generated throughout the economy by these transportation savings.

As with the highway system, the rail choke points identified by the MAROps Study are only part of the total East Coast rail story. The Coalition has commissioned two parallel studies—a Northeast Rail Operations Study and Southeast Rail Operations Study—to complete the picture of the Coalition region’s rail system and its needs. The initial findings, again, echo the findings of our highway system. The initial findings from these studies indicate that we have an increasingly congested rail system that is not keeping pace with economic growth and demand.

The maps in Figure 4 show the major rail lines in the Coalition region, the current and anticipated rail volumes on those lines, and the emerging rail choke points and congested areas.

**Figure 4. Major Rail Lines, Container and Railcar Flows, and Choke Points in the Coalition Region**



AASHTO’s 2003 *Freight-Rail Bottom Line Report*, which examined the state of the freight-rail industry nationally, found that freight rail transportation was not keeping pace with demand and the economy. It found that freight rail was shedding traffic to trucking and

to an already congested highway system. Our recent work confirms this finding. The railroads are continuing to shed traffic to the highway system despite the much improved financial health of the railroad industry, because the rail industry broadly is operating at capacity and is not investing as fast as its market is growing. This is worrisome for the Coalition region, which depends heavily on freight rail. If rail cannot maintain its share of freight, then the consequences will be increased congestion on our highways, a higher cost of doing business, and a higher cost of living for the whole Coalition region.

In SAFETEA-LU, Congress expanded funding for short-line rail improvements and made it easier for the public sector to invest in public-use intermodal terminals, but the funding still falls far short of needs, and neither the private sector, which owns and operates most of the rail system, nor the public sector, which has an enormous economic stake in the health and capacity of the freight-rail system, have the money to address these major rail choke points. Again, we need a national vision and policy that says we will address these major rail choke points before they fail.

## **Financing of Mega Projects with Multi-state Benefits**

Recognizing the importance of establishing the institutional and financial approaches to implement the improvements that will eliminate these bottlenecks and choke points, the I-95 Corridor Coalition sponsored a financing forum on November 1, 2006 to explore alternative approaches to finance critical transportation projects that have multi-state impacts. Representatives from the financial community, state and regional transportation agencies, the rail and trucking industry, and others discussed the potential financing mechanisms for major, multi-state transportation projects. The group recognized that we need to find new ways to finance transportation improvements and new ways to coordinate investments across state lines and across public and private organizations. The consensus was that we need to find a way to evaluate who the economic beneficiaries are of large, expensive projects of national significance and determine a way that costs can be borne proportionally by those who benefit.

One intriguing approach offered by my boss, Maryland Department of Transportation Secretary Robert Flanagan, was to explore the potential of a “value-added” assessment, applied each time goods or products are moved on the transportation system. The movement of the good or product to a different location makes that good or product more valuable to the entity receiving it. If a “value-added” assessment could be collected based on the cost of transportation of the good or product, the economic beneficiary of the transportation of the good or product could more equitably be charged for the cost of the transportation system that was used to transport the good or product. This would be a type of sales tax and would be similar to the value-added tax in Europe, but based on the value added only as a result of the transportation of the good or service. The revenues from this charge would be dedicated to financing improvements in the transportation system. The proceedings from the finance forum will be made available to the Commission once they have been published. If the Commission is interested in further pursuing this concept, the Coalition is willing to set aside money from its work program to further research and develop the concept in cooperation with the Commission staff.

## **The Cost of Failure**

The cost of transportation failure—failing to keep up with growth and trade, failing to fix major truck bottlenecks, and failing to fix major rail chokepoints—will be economic failure. When trucks are delayed for hours on the road, the costs are passed back to shippers and receivers, and eventually to their customers—to you and me. When railroads shed freight to trucks, the costs of the additional pavement and bridge maintenance are passed back to state and local highway and transportation agencies and eventually to the taxpayers—to you and me. And when transportation costs are passed back to businesses and households, they increase the cost of doing business and the cost of living, weakening the economic vitality and global competitiveness of the local, state, and national economies.

This is a critical concern to the Coalition's members. Our state departments of transportation, our public and private transportation authorities, and our transportation carrier companies exist to move people and goods and to ensure our region's and our nation's social, economic, and environmental well being.

The Coalition region is a \$4.5 trillion economy—40 percent of U.S. gross domestic product—and equivalent to second largest economy in the world. It hosts 37 percent of all U.S. jobs and accounts for 28 percent of all US exports. At 256 persons per square mile, it is over three times more densely populated than the U.S. average and as densely settled as much of Western Europe. The Coalition region will experience 25 percent of the nation's projected population growth over the next two decades. It has 21 percent of the nation's road mileage, but 35 percent of the nation's vehicle miles of travel. It accommodates movement of 565 million long-distance (> 100 miles) trips and 5.3 billion tons of freight annually.

If the Coalition's transportation systems—its highway and rail systems, which I have focused on today—and equally important, its marine ports, its airports, its intercity passenger rail, its commuter rail, and its bus and transit systems—do not work efficiently and reliably, our regional and national economies are at risk. The Coalition's Northeast, Mid-Atlantic, and Southeast regions are national and global centers of education, finance, government, high-tech manufacturing, and agriculture. They are tightly integrated and interdependent economies. Innovation, productivity, and trade are the keys to the region's and the nation's future. And transportation of freight, people, and information are the foundation and enablers of that innovation, productivity, and trade.

## **AASHTO's Policy Regarding the Future of the Interstate System**

As I mentioned earlier, I also served as Chair of one AASHTO's policy committees on the future of the Interstate system. There are several recommendations AASHTO would like to make to the Commission regarding the Interstate System of the future. Several of these are consistent with the issues I have raised on behalf of the I-95 Corridor Coalition, but some go beyond the points that I have focused on thus far. These policy positions were adopted by AASHTO's Board of Directors on October 30, 2006.

First, among those is that we preserve and improve the 47,000 mile system built over the last 50 years so it lasts for at least the next 50 years.

Second, that we improve the performance of the Interstate System through advanced ITS technologies which make it operate smarter and move more traffic.

Third, that we initiate the next phase of development of the Interstate system which will add as much capacity in the future as we have built in the past.

Since the mid-1950's vehicle miles traveled on our nation's highways has increased five times from 600 billion to 3 trillion. It is expected to at least double again in the next 50 years. So, substantial additional capacity will be needed for both people and freight.

New capacity needs to be created in several ways: By adding new routes, adding lane miles on existing corridors, correcting bottlenecks, improving intermodal connections, upgrading interchanges, and creating exclusive truck lanes.

While more comprehensive studies are needed, preliminary data indicate that states could add 10,000 miles of new routes on new Interstate corridors, 20,000 miles of upgrades to National Highway System routes to Interstate standards, and 20,000 new lane miles on existing Interstate routes.

AASHTO will ask the Commission to recommend to the Congress that strong federal assistance be continued to fund all three of these Interstate needs: preservation, performance and capacity.

## **Need for a National Vision**

The I-95 Corridor Coalition started as a state and local, and public and private, initiative to work together to identify and solve transportation needs. We are very proud of the work of the Coalition and very happy that the Congress, our states, and our private sector members have continued to support and fund the Coalition. We believe that a key reason that they support the Coalition is that it addresses problems of national and regional importance that are critical to their and our well being.

As you work toward a vision of the future and a national transportation policy, we would recommend that you draw on the lessons learned by the Coalition and—

- See freight transportation and longer-distance business and recreational travel as critical to interstate commerce, global trade, and the economic vitality of the nation;
- See focused federal capital investments in mega-projects, system preservation and maintenance, pricing and tolling, and operations and information as the tools for our 21<sup>st</sup> Century transportation system; and
- See strong federal leadership to—
  - Complete a national transportation policy framework;

- Define a vision of the freight- and passenger-transportation systems for the 21<sup>st</sup> Century as a framework for policy and investment decisions;
- Support multistate institutions like the I95 Corridor Coalition that help states build consensus and prioritize investments in projects of regional and national importance; and
- Implement newly authorized mechanisms to fund large projects of national importance where benefits accrue to multiple jurisdictions and costs are too great for the jurisdiction in which the project is located to fund alone.

## Attachment



The I-95 Corridor Coalition is a partnership of state departments of transportation, regional and local transportation agencies, toll authorities, and related organizations, including law enforcement, transit, port and rail organizations, from Maine to Florida, with affiliate members in Canada.

I-95 Corridor Coalition members are working together to reduce congestion, increase safety/security and to assure that the entire transportation network supports our economic vitality throughout the region. The Coalition pursues a wide range of projects and activities related to providing reliable and timely travel information, coordination of incident response and freight within the corridor and across different modes of travel, and electronic systems to make payment of tolls and transit fares easier. Following are some of the successful programs the I-95 Corridor Coalition has launched. These are only the beginning; there is still much more to be done.

### **Traveler Information Services**

In addition to the very popular Travelers Alert Map, the Coalition's activities include promotion of integrated 511 Corridor-wide information, travel information coordination efforts, and operation of a web site to facilitate rapid distribution of current information.

### **Coordinated Operations**

Traffic Management, Law Enforcement, Fire, Safety, Emergency and other Incident Management response personnel work together when major incidents occur. They meet regularly to discuss how incidents and emergencies can be handled more effectively.

### **Intermodal Transportation**

The Coalition is working to facilitate safe, efficient and reliable movement of people and goods across all modes. This includes projects to improve information at connections between rail and airport stations, and to improve the flow of freight and passenger traffic in the region including to and around port areas.

## **Education and Training**

The Coalition provides training, best practices workshops/reports, and information exchange meetings related to improving management and operations for transportation.

## **Commercial Vehicle Operations**

The Coalition supports efforts to improve safety and streamline regulation of commercial vehicles through the use of technology.

## **Electronic Payment Services**

The Coalition is supporting projects that advance interoperability between transit and toll agencies for bankcard/smart card based fare payments.

## **Information Systems**

Development of both real-time and archived data sharing information systems is underway to assist member agencies with analysis, planning, long distance travel information and incident management.

## **Performance Measures**

Performance Measures are a practical way to link the Coalition's mission and strategies with the results of our work. The Coalition is working with members to develop measures that are multimodal, reflect the diversity of our members and states, relate to outputs and outcomes of Coalition programs and projects, and are practical and helpful to develop and use.

## **Safety**

The Coalition serves as a vehicle for disseminating information about best practices and lessons learned from other safety initiatives in the region and assists members with identifying solutions to their safety needs.

**KEN R. ANDREWS**  
**Director, Logistics Competitiveness**  
**The Dow Chemical Company**



## **PANEL III: CONDITIONS AND NEEDS OF THE NATIONAL AND NORTHEAST TRANSPORTATION SYSTEM**

**KEN ANDREWS**

**Director, Logistics Competitiveness  
The Dow Chemical Company**

Ken Andrews joined The Dow Chemical Company in 1981 as a Distribution Specialist in Ivon Watkins-Dow Limited, New Zealand.

In 1984 he assumed an expanded role to lead systems development for Dow's Asia-Pacific Materials Management group, and relocated to Hong Kong in 1986. He returned to New Zealand in 1987 as Materials Manager and Quality Assurance Leader. In 1990, he relocated to Midland, Michigan to represent Asia-Pacific in Dow's global SAP systems development project, and then led the implementation of SAP for the Latex business in North America.

He became North American supply chain manager for this business in 1993. Ken returned to Hong Kong in 1994 and served as Asia-Pacific regional supply chain manager for several Chemicals' and Plastics' businesses. In 1999, he relocated back to Midland, Michigan as global supply chain director for the Methyl Cellulosics business and Six Sigma champion for the Specialty Chemicals' business portfolio supply chain function.

In 2000, he was appointed Global Supply Chain Director/Six Sigma business champion for the Ethylene Oxide/Ethylene Glycol business and also led the Union Carbide/Dow merger for this business. In 2004, Ken led the MEGlobal glycols joint venture implementation project (MEGlobal is a 50/50 joint venture between Dow and Petrochemical Industries Company (PIC) of Kuwait), and was appointed Vice President of Global Supply Chain and Purchasing for MEGlobal in July 2004, located in London, England.

Ken returned to Dow's Midland, Michigan headquarters in February 2006 and was appointed Director, Logistics Competitiveness, focusing on global transportation issues and needs.

Ken holds a bachelors degree in international business and management from Northwood University, Michigan.

Testimony of Kenneth R. Andrews  
Director, Logistics Competitiveness  
The Dow Chemical Company  
Midland, Michigan  
To the  
National Surface Transportation Policy and Revenue Study Commission  
Field hearing  
New York City  
November 15 – 16, 2006

Thank you Mr. Chairman. I greatly appreciate the opportunity to address the commission and present a shipper's perspective on the nation's transportation needs and issues.

Our national transportation infrastructure is the lifeblood of the American economy, and is critical to manufacturing competitiveness in the United States. Our transportation system is facing unprecedented challenges. The mobility we enjoy as individuals today, plus the availability and timely movement of goods and services we take for granted is under threat. There is fundamentally a growing imbalance of transportation demand versus available supply.

We are facing increasing transportation capacity constraints and insufficient investment in replacement and expanded infrastructure to meet future needs.

Fueled by a buoyant economy and an increasing population, demand for transportation services is growing rapidly. Demand-mix patterns are also shifting—for example, witness the significantly growing inter-modal traffic volume. There are inadequate mechanisms and sources of finance today to fund necessary infrastructure maintenance and expansion on a large scale across all modes and regions.

We also lack an integrated, holistic freight policy and strategy to address our critical transportation infrastructure issues.

Without the transportation infrastructure--and our transportation partners, Dow Chemical, a \$46 billion company, employing 42,000 people, simply would not exist in the United States. We are dependent on this infrastructure for raw materials coming into our plants, and for our products going out to our customers - in all parts of the world. We currently spend over \$2bn per year on freight globally.

So, why is safe and secure, reliable, and cost-competitive transportation of the products we, and our industry produce so important to our customers and all Americans? Over 95% of the things that touch our lives every day ... from a glass of water to a tube of toothpaste ... to the clothes we wear, the food we eat, the computers and telephones we work with ... the cars we drive ...the airplanes we fly in...the medicines we take ... the houses we live in...the emergency services we call and the hospitals we visit in times of need..all of these things are made possible by the science of chemistry and the products that are derived from my company and our industry.

The Department of Homeland Security has designated both my industry and the transportation industry as “critical infrastructure” and we therefore have a shared responsibility with the public sector to ensure there is a fair commerce system and a national investment policy and strategy for transportation infrastructure that keeps America a secure and competitive place to manufacture products, deliver services, and to work and live.

In so doing, we believe we have an outstanding opportunity to positively impact long term American competitiveness and sustainability, allowing both shippers and carriers to grow and prosper now and in the future while contributing to building a better America.

In 2003, the President’s “National Strategy for the Physical Protection of Critical Infrastructure and Key Assets” contained these words ...“When we flip a switch, we expect light. When we pick up a phone, we expect a dial tone. When we turn a tap, we expect drinkable water. Electricity, clean water, and telecommunications are only a few of the critical infrastructure services that we tend to take for granted. They have become so basic in our daily lives that we notice them only when, for some reason, service is disrupted. When disruption does occur, we expect reasonable explanations and speedy restoration of service.”

Albert Einstein once said: “Reality is merely an illusion, albeit a very persistent one.” Unfortunately the illusion that there are simple and “speedy restoration of service” options to our major transportation infrastructure and capacity issues is not “real reality”.

So, what needs to be done? We propose engaging thought-leaders from across the board to develop a compelling vision of what our “next generation” transportation infrastructure should look like, based on a model that analyzes trade flows, demand patterns, and infrastructure capacity options. Through this effort, we can develop a clear strategy and investment plan to realize it in a timely manner. Let’s take solutions, not problems, to Capitol Hill. Let’s favor market solutions versus government intervention wherever possible, and let’s make public policy proposals that will materially build a better transportation infrastructure.

Why should we bring multiple industries and the public sector together to participate in the national debate on transportation infrastructure? I believe there are several important reasons...we all participate in this great economy; we all depend on our transportation infrastructure to enable our business success and quality of life; we all have much to offer and between us we bring the knowledge of the products and services that move through our transportation network, as well as the network itself, and the political and legislative framework in which we live and work—let’s harness this collective knowledge!

In closing...our transportation infrastructure can either enable competitive commerce or stifle it...let’s focus on enablement. It was a tenacious, pioneering spirit that built the United States into the economic powerhouse that it is today...let’s rekindle that same spirit and leadership to create the “next generation” transportation infrastructure that will help assure American competitiveness and sustainability through the 21<sup>st</sup> century, and well beyond.

Thank you.